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## **Amendments to Claims**

## 1-11. Canceled.

- 12. (New) A protein comprising at least one amino acid, wherein said amino acid comprises a side chain that has at least one bond vector which consists of two NMR-active nuclei bonded together and wherein essentially all other nuclei in said amino acid are NMR inactive.
- 13. (New) A protein comprising at least one amino acid, wherein said amino acid comprises a side chain that has at least one bond vector which consists of two NMR-active nuclei bonded together, and wherein essentially all other vectors in said amino acid are NMR inactive.
- 14. (New) A protein of claim 12 or claim 13, wherein said two NMR-active nuclei are <sup>13</sup>C and <sup>1</sup>H, wherein the remainder of the carbon atoms in said amino acid are essentially <sup>12</sup>C, wherein the nitrogen atoms in said amino acid are essentially <sup>14</sup>N and wherein the remainder of the hydrogen atoms in said amino acid are essentially <sup>2</sup>H.
- 15. (New) A protein of claim 12 or claim 13, wherein said two NMR-active nuclei are <sup>13</sup>C and <sup>1</sup>H, wherein the remainder of the carbon atoms in said amino acid are essentially <sup>12</sup>C, wherein the nitrogen atoms in said amino acid are essentially <sup>14</sup>N and wherein the remainder of the hydrogen atoms in said amino acid are natural abundance.
- 16. (New) A protein of claim 12 or claim 13, wherein said two NMR-active nuclei are <sup>15</sup>N and <sup>1</sup>H, wherein the remainder of the nitrogen atoms in said amino acid are

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essentially <sup>14</sup>N, wherein the carbon atoms in said amino acid are essentially <sup>12</sup>C and wherein the remainder of the hydrogen atoms in said amino acid are essentially <sup>2</sup>H.

17. (New) A protein of claim 12 or claim 13, wherein said two NMR-active nuclei are <sup>15</sup>N and <sup>1</sup>H, wherein the remainder of the nitrogen atoms in said amino acid are essentially <sup>14</sup>N, wherein the remainder of the carbon atoms in said amino acid are essentially <sup>12</sup>C and wherein the remainder of the hydrogen atoms in said amino acid are natural abundance.